REMARKS

No new matter has been added. The amendments to the claims address typographical and spelling errors, and improve antecedent basis. The amendments do not affect, or surrender, any scope of any claim as originally filed.

The Applicants again request entry of the amendments as set forth herein prior to examination of the application on the merits.

Respectfully submitted,

Brick G. Power

Registration No. 38,581 Attorney for Applicant(s)

TRASKBRITT P.O. Box 2550

Salt Lake City, Utah 84110-2550

Telephone: 801-532-1922

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IN THE SPECIFICATION:

Please replace paragraph number [0001] with the following rewritten paragraph:

[0001] This application is a continuation of application Serial No. 09/736,624, filed December 14, 2000, now U.S. Patent No. 6,585,927, which issues issued July 1, 2003, which is a divisional of application Serial No. 09/481,779, filed January 11, 2000, now U.S. Patent 6,337,122, issued January 8, 2002.

Please replace paragraph number [0062] with the following rewritten paragraph:

[0062] Referring again to FIG. 9, it should be noted that apparatus 80 useful in the method of the present invention includes a camera 140 which is in communication with computer 82 and preferably located, as shown, in close proximity to optics and scan controller, such as mirror-94_94, located above surface 100 of support platform 90. Camera 140 may be any one of a number of commercially available cameras, such as capacitive-coupled discharge (CCD) cameras available from a number of vendors. Suitable circuitry as required for adapting the output of camera 140 for use by computer 82 may be incorporated in a board 142 installed in computer 82, which is programmed as known in the art to respond to images generated by camera 140 and processed by board 142. Camera 140 and board 142 may together comprise a so-called "machine vision system" and, specifically, a "pattern recognition system" (PRS), the operation of which will be described briefly below for a better understanding of the present invention. Alternatively, a self-contained machine vision system available from a commercial vendor of such equipment may be employed. For example, and without limitation, such systems are available from Cognex Corporation of Natick, Massachusetts. For example, the apparatus of the Cognex BGA Inspection PackageTM or the SMD Placement Guidance PackageTM may be adapted to the present invention, although it is believed that the MVS-8000TM product family and the Checkpoint® product line, the latter employed in combination with Cognex PatMaxTM software, may be especially suitable for use in the present invention.

Please replace paragraph number [0067] with the following rewritten paragraph:

[0067] Continuing with reference to FIGs. 9 and 10, wafer 72 or the one or more semiconductor devices 10′ or other substrates on platform 90 may then be submerged partially below the surface 88 level of unconsolidated material 86 to a depth greater than the thickness 87 of a first layer of material 86 to be at least partially consolidated (e.g., cured to at least a semisolid state) to form a first material layer 14a and, thus, the lowest layer 130A of each marking 36 at the appropriate location or locations on each semiconductor device 10′ or other substrate, then raised to a depth equal to the layer thickness, surface 88 of material 86 being allowed to become calm. Photopolymers that are useful as material 86 exhibit a desirable dielectric constant exhibit, exhibit low shrinkage upon cure, are of sufficient (i.e., semiconductor grade) purity, exhibit good adherence to other semiconductor device materials, and have a similar coefficient of thermal expansion (CTE) to the primary materials of the substrates to which markings 36 are to be secured. Exemplary photopolymers exhibiting these properties are believed to include, but are not limited to, the above-referenced resins from Ciba Specialty Chemical Corporation. One area of particular concern in determining resin suitability is the substantial absence of mobile ions, and specifically fluorides.

IN THE CLAIMS:

Claims 15, 18, 20, and 21 have been amended herein. All of the pending claims 1 through 22 are presented below. This listing of claims will replace all prior versions and listings in the application. Please enter these claims as amended.

- 1. (Original) A method of labeling a semiconductor device component, comprising: providing at least one substrate;
- disposing at least one layer of an unconsolidated material over a surface of said at least one substrate; and
- at least partially consolidating a plurality of selected areas of said at least one layer in a sequential fashion to form a corresponding layer of a mark over said surface.
- 2. (Original) The method of claim 1, wherein said disposing comprises disposing at least one layer of an uncured polymer.
- 3. (Original) The method of claim 2, wherein said at least partially consolidating comprises at least partially curing polymer at said plurality of selected areas.
- 4. (Original) The method of claim 2, wherein said disposing comprises disposing at least one layer of an uncured photopolymer.
- 5. (Original) The method of claim 4, wherein said at least partially consolidating comprises at least partially curing photopolymer at said plurality of selected areas.
- 6. (Original) The method of claim 5, wherein said at least partially curing comprises directing a UV laser over said plurality of selected areas of said at least one layer.

- 7. (Original) The method of claim 6, wherein said at least partially curing comprises curing at least edges of said corresponding layer of said mark.
- 8. (Original) The method of claim 7, further comprising further curing uncured photopolymer bounded by said edges.
- 9. (Original) The method of claim 8, wherein said further curing comprises thermally curing said uncured photopolymer.
- 10. (Original) The method of claim 8, wherein said further curing comprises subjecting said uncured photopolymer to UV radiation.
- 11. (Original) The method of claim 7, wherein said curing at least edges comprises curing at least an outer periphery of said mark.
- 12. (Original) The method of claim 11, wherein said curing at least edges further comprises curing an inner periphery of said mark.
- 13. (Original) The method of claim 1, wherein said at least partially consolidating comprises sequentially consolidating a plurality of superimposed, contiguous layers of unconsolidated material and securing adjacent ones of said plurality of layers to one another.
- 14. (Original) A method of labeling a semiconductor device component, comprising: placing at least one substrate in a horizontal plane; and stereolithographically fabricating at least one mark on said at least one substrate.
- 15. (Currently Amended) The method of claim 14, wherein said stereolithographically fabricating comprises:

disposing a layer comprising unconsolidated material on said at least one substrate; and at least partially consolidating unconsolidated material in a plurality of selected regions of said layer in a sequential fashion.

- 16. (Original) The method of claim 15, wherein said stereolithographically fabricating further comprises: repeating said disposing and said at least partially consolidating at least once.
- 17. (Original) The method of claim 14, further comprising: recognizing a location and an orientation of said at least one substrate.
- 18. (Currently Amended) The method of claim 17, further comprising storing data including at least one physical parameter of said at least one substrate and of said at least one mark in computer memory, memory and using the said stored data in conjunction with a machine vision system to recognize the said location and the said orientation of said at least one substrate.
- 19. (Original) The method of claim 18, further including storing in computer memory at least one parameter of another structure to be associated with said at least one substrate.
- 20. (Currently Amended) The method of claim 18, further comprising using the said stored data, in conjunction with said machine vision system, to effect said stereolithographically fabricating said at least one mark.
- 21. (Currently Amended) The method of claim 17, further comprising recognizing the said location of said at least one substrate on which said at least one mark is to be fabricated.
- 22. (Original) The method of claim 17, further including securing said at least one substrate to a carrier prior to said placing said at least one substrate in said horizontal plane.